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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/177,815	10/23/1998	KYOUNG-SU KIM	1363.1004/MD	3622

21171 7590 01/16/2003

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EXAMINER

BROWN, RUEBEN M

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 01/16/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/177,815		KIM ET AL.	
	Examiner		Art Unit	
	Brown M. Reuben		2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 31 May 1999 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>12</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Specification

1. The amendment filed 4/5/1999 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

Page 3, line 4, "including both an analog signal and a digital signal" represents new matter. The term 'compressed hybrid carrier signal' has not been defined in the original disclosure as including both an analog signal and a digital signal.

Applicant is required to cancel the new matter in the reply to this Office Action.

2. The disclosure is objected to because of informalities, such as the following, based on amendments filed 4/5/1999:

Page 5, lines 19-20 read, "It is still another object of the present invention to prevent that results when alternating between viewing a digital broadcast and an analog broadcast".

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Page 6, lines 2-5 read, "the digital broadcasting receiver for receiving analog broadcasting includes a controller, which generates more than two control signals having respectively different information, for receiving to receive analog or digital broadcasting, ...".

The specification includes numerous other informalities. Appropriate correction is required.

3. A substitute specification to the claims is required pursuant to 37 CFR 1.125(a) because the number and nature of the amendments to the specification renders it difficult to consider the application.

A substitute specification filed under 37 CFR 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR 1.121. If the substitute specification contains additional subject matter not of record, the substitute specification must be filed under 37 CFR 1.125(b) and must be accompanied by: 1) a statement that the substitute specification contains no new matter; and 2) a marked-up copy showing the amendments to be made via the substitute specification relative to the specification at the time the substitute specification is filed.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4 & 18-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Considering claim 1, the last three paragraphs of the instant claim recite different processing algorithms that are selectively executed. The claimed 'selectively encoding...' and 'selectively transmitting...' that the features should be executed either on the received digital broadcasting signal or the received analog broadcasting signal. However, it is not clear as to whether applicant is intending to require for instance, optionally encoding the MPEG processed video signal or optionally encoding the predetermined additional information according to the extracted synchronous signal, or alternatively encoding both or neither of the them, with respect to lines 12-14 of the instant claim 1.

Considering claims 2-4, the instant claims depend from claim 1, and therefore are likewise analyzed.

Considering claims 18 & 20, the instant claims include similar language and are likewise analyzed. In particular, claims 18 & 20 recite "a tuning unit to selectively receive the digital and

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analog broadcasting signals". It is not clear whether the tuner optionally tunes to a digital signal or analog signal, or alternatively tunes to both of them.

Considering claim 19, the instant claim depends from claim 18, and therefore is likewise analyzed.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-17 & 19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Considering amended claim 1, the amended claimed feature of "receiving the analog broadcasting signal if the analog broadcasting channel is selected, extracting a synchronous

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signal from the received analog broadcasting signal, adjusting the extracted synchronous signal to a synchronous signal of *the* digital broadcasting signal”, is not enabled. Line 3 of the instant claim recites *selecting one of* a digital broadcasting channel and an analog broadcasting channel and the next paragraph recites receiving (and processing) the digital broadcasting signal *if* the digital broadcasting channel is selected. Therefore the claim requires **selecting and receiving** a digital broadcasting channel *or* an analog broadcasting channel, and thus either a digital broadcasting signal or analog broadcasting signal.

Since line 7 of the instant claim corresponds to the case that the analog broadcasting channel and thus the analog broadcasting signal is selected and received, then according to line 3, the digital broadcasting channel and thus digital broadcasting signal is not selected and not received. Therefore the analog broadcasting signal apparently cannot be adjusted to *the* digital broadcasting signal, because it is not received in this instance.

Considering claims 2-4, the instant claims depend from claim 1, and therefore are likewise analyzed.

Considering claim 5, the instant claim recites, “a controller to determine whether an analog broadcasting channel or digital broadcasting channel is selected, and to generate a plurality of control signals having respectively different information, to receive the analog *or* digital broadcasting channel according to the selection;”. The instant claim goes on to require receiving either the analog or digital broadcasting signal, according to the channel selection.

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Again, these recitations unambiguously state that the analog broadcasting channel (signal) is received **or** the digital broadcasting channel (signal) is received/tuned, but not both of them.

Thus the further claimed feature of the “video mix unit to mix the analog video signal from said air tuner and the encoded analog video signal” is apparently contradictory, because as previously pointed out, the both of them have not been received. There is a similar apparent contradiction with the further claimed feature of, “an audio selection unit to select and transmit the converted MPEG processed analog audio signal and the analog audio signal from said air tuner”.

Considering claims 6-10, the instant claims depend from claim 5, and therefore are likewise analyzed.

Considering claim 11, the instant claim is likewise analyzed and includes recitations similar to the subject matter discussed in the above claims 1 & 5. In particular, claim 11 recites “A digital broadcast receiver, comprising: a controller to determined whether an analog broadcasting signal or a digital broadcasting signal is to be displayed, and to generate additional information”. Yet the instant claim goes on to recite, “a video encoder to encode a video signal from the digital broadcasting signal and the additional information according to the separated synchronous signal”, whereas the synchronous signal can only be separated from the analog broadcasting signal if the instant analog broadcasting signal is selected and thus received, which is not the case if the digital broadcasting signal is selected and thus received.

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Considering claims 12-17, the instant claims depend from claim 11, and therefore are likewise analyzed.

Considering claim 19, the instant claim includes features that correspond with subject matter mentioned above in the rejection of claim 1, and is likewise analyzed.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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9. Claim 18 is rejected under 35 U.S.C. 102(e) as being anticipated by Bestler, (U.S. Pat # 5,638,112).

Considering claim 18, the instant claim is analyzed as best understood, in light of the above 112 rejection. The claimed broadcast receiver which receives a digital broadcasting signal and an analog broadcasting signal, comprising a tuning unit to selectively tune the digital and analog signal, is met by the operation of the hybrid analog/digital STB of Bestler, Abstract & col. 1, lines 5-41. The hybrid analog/digital STB of Bestler selectively receives and tunes either or both analog and digital TV signals; see col. 2, lines 3-11 & col. 4, lines 2-6.

As for the claimed processing unit to process the digital and analog broadcasting signals in accordance with the selection by the tuning unit, and to synchronize phases of the digital and analog broadcasting signals upon the tuning unit changing selection between the digital and analog broadcasting signals, Bestler teaches that the composite video signal from an analog TV signals is converted to a digital form and normalized, col. 3, lines 61-65). The normalizer 70 may comprise a scan converter that converts either or both an analog and digital signal to the desired display format. This is done to more accurately display a TV signal according to the desired display format, thereby appropriately increasing the perceived resolution to the desired display format; see col. 4, lines 6-24. Hence, the disclosed scan conversion process reads on the claimed feature of synchronizing the phases of the digital and analog signals.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bestler.

Considering claim 20, the instant claim is analyzed as best understood, in light of the above 112 rejection. The claimed features that correspond with subject matter mentioned above in the rejection of claim 18, are likewise analyzed. As for the additional claimed feature of a video mix unit to selectively input the output of the processed digital broadcasting signal with additional information and the processed analog broadcasting signal with the additional information is met by the disclosure of Bestler. In particular, Bestler teaches that additional information such as text or graphics may accompany the video signals and are processed & mixed with the composite video signals by the mixer 64; see col. 3, lines 32-61.

Regarding the further claimed limitation that the additional information corresponding to a digital broadcasting signal and the additional information corresponding to an analog broadcasting signal are the same, Bestler does not address such a scenario. Official Notice is taken that at the time the invention was made, it was known in the art for multiple TV signals to

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comprise the same information, at least in the case that they are the same video program with one being transmitted over a different transmission medium from the other. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to operate Bestler in manner wherein the same additional information accompanies different TV signals, at least for the desirable purpose of enabling a wider audience to receive the same programming over a variety of transmission formats, such as analog and digital.

Response to Arguments

12. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- A) Nayebi Teaches synchronizing a digital TV phase to an analog TV phase.
- B) Ock Teaches synchronizing sub-pictures in a PIP environment.
- C) Furumiya Teaches synchronizing the phase difference between an external and internal sync signals.
- C) Grob Provides numerous teachings on the general components of a composite signal, such horizontal vertical signals. and luminance/chrominance separation. For instance it is taught.
- D) Sandbank Teaches NTSC encoding a digital signal and luminance/chrominance separation.

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Any response to this action should be mailed to:

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or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

(703) 872-9314 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")


*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (703) 305-2399. The examiner can normally be reached on M-F (8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Reuben M. Brown


ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600